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MILBANK, TWEED, HADLEY & MCCLOY
1 CHASE MANHATTAN PLAZA
NEW YORK, NY 10005-1413

EXAMINER
CHENCINSKI, SIEGFRIED E

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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/929,886
Filing Date: August 15, 2001
Appellant(s): ALLEN ET AL.

Blake Reese, Esq.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 20, 2010 appealing from the Office

action mailed January 20, 2010.

(1) Real Party in Interest

The real party in interest is The New York Stock Exchange, Inc of New York, New York vis-a-vis Assignments that were recorded on August 15, 2001, at Reel 012085, Frame 0390.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 12-15, 17-19, 21-24, 42-43, 46-50, 52-57, 87-89 and 93-94 are pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

(1) the rejection of claims 12-19, 23-24, 42-50, 54, and 87-89 under 35 U.S.C. § 101 as being directed to non-statutory subject matter;

(2) the rejection of claims 12-15, 17-19, 23-24, 42, 54-57, 87-89, and 93-94 under 35 U.S.C. § 112, ~ 1 as failing to comply with the written description requirement;

(3) the rejection of claims 12-15, 17-19, 23-24, 42, 54-57, 87-89, and 93-94 under 35

U.S.C. § 112, ~ 2 as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention;

4) the rejection of claims 12-15, 17-19, 21-24, 42, 46-48, 52-57, and 93-94 under 35

U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,173,270 to Cristofich et al.

("Cristofich"), the present Specification of Appellants ("Appellants' Specification"), U.S.

Pat. No. 6,098,051 to Lupien et al. ("Lupien"), and U.S. Pat. No. 4,412,287 to Braddock

III ("Braddock");

(5) the rejection of claims 43 and 49 under 35 U.S.C. § 103(a) as being unpatentable

over Crisofich, Appellants' Specification, Lupien, and Braddock, in further view of U.S.

Pat. Pub. No. 2001/0044767 A1 to Madoff et al. ("Madoff");

(6) the rejection of claim 50 under 35 U.S.C. § 103(a) as being unpatentable over

Critofich, Appellants' Specification, Lupien, and Braddock, in further view of U.S. Pat.

No. 6,519,574 to Wilton et aL ("Wilton"); and

(7) the rejection of claims 87-89 under 35 U.S.C. § 103(a) as being unpatentable

over Crisofich in view of Appellants' Specification, Lupien, and New York Stock

Exchange Systems and Trading Procedures, NYSE Working Paper #93-01, Draft 1.2

April 27, 1993, by Hasbrouch, Sofianos, and Sosebee ("NYSE Working Paper").

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal

because they have been withdrawn by the examiner.

The rejection under 35 USC 112-1st Paragraph.

The rejection under 35 USC 112-2nd Paragraph

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in

the Appendix to the appellant's brief.

(8) Evidence Relied Upon

Cristofich et al.   US 6,173,270 B1

Applicant Admitted Prior Art (hereafter AAPA)

Lupien et al.   US Patent 6,098,051

Braddock III   US Patent .4,412,287

Madoff et al.   US PreGrant Publication 2001/0044767 A1

Wilton et al.   US Patent 6,519,574 B1

Hasbrouck, Sofianos and Sosebee (New York Stock Exchange Systems and Trading

Procedures, NYSE Working Paper #93-01, Draft 1.2 April 27, 1993, hereafter

Hasbrouck.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Applicant Admitted Prior Art

1.   Per MPEP 2129 - I, Applicant admitted prior art exists in the background section
of Applicant's specification. Such admissions are valid as prior art references for
claimed subject matter.

2129 Admissions as Prior Art [R-6]

I. ADMISSIONS BY APPLICANT CONSTITUTE PRIOR ART
A statement by an applicant >in the specification or made< during prosecution

identifying the <u>work of another</u> as "prior art" is an admission **>which can be relied upon
for both anticipation and obviousness determinations, regardless of whether the
admitted prior art would otherwise qualify as prior art under the statutory categories of
35 U.S.C. **102**. *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354, 66
USPQ2d 1331, 1337 (Fed. Cir. 2003); *Constant v. Advanced Micro-Devices Inc.*, 848
F.2d 1560, 1570, 7 USPQ2d 1057, 1063 (Fed. Cir. 1988).

     In the instant case, the examiner cited Applicant's admissions on the
record in the first Office Action on the merits mailed February 16, 2007.

AAPA discloses in the specification:

• an auction market on the floor of an exchange (p. 1, ll. 16-17);

• a limit order and a market order (p. 1, ll. 16-17);

• price improvement potential through competition among the crowd on the market
floor.(p. 1, l1.18-20);

• an electronic specialist display book (p. 1, l. 22);

• an opportunity to execute an order against other electronic orders on the
specialist display book (p. 1, ll. 20-24);

• interest on the part of some investors and institutions in having a transaction
execute at a known price (p. 1. l1.24-25);

• interest on the part of some investors and institutions in having a transaction
execute at a known price while foregoing an opportunity for possible price
improvement on the auction floor (p. 1. l1.24-25);

• the desirability on the part of some investors and institutions in having a
transaction execute at a known price if the transaction will execute in a more
timely fashion than is available with the traditional auction transaction (p. 2, l1.1-
2).

Claim Rejections - 35 USC § 101

   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

2.   Claims 12-19, 23, 24, 42-50, 54 and 87-89 are rejected under 35 U.S.C. 101
because the claimed invention is directed to non-statutory subject matter.
Independent claims 12, 23, 24, 42 54 and 87 recite a process comprising the steps of
assigning, receiving, determining, exposing, executing, comparing, changing, allocating
and updating. Based on Supreme Court precedent, a proper process must be tied to
another statutory class or transform underlying subject matter to a different state or
thing (*Diamond v. Diehr,* 450 U.S. 175, 184 (1981); *Parker* v. *Flook,* 437 U.S. 584, 588
n.9 (1978); *Gottschalk v. Benson,* 409 U.S. *63,* 70 (1972); *Cochrane* v. *Deener,* 94 U.S.
780,787-88 (1876)). Since neither of these requirements is met by the claim, the
method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a
statutory process, the claim should positively recite the other statutory class to which it
is tied, for example by identifying the apparatus that accomplished the method steps or
positively reciting the subject matter that is being transformed, for example by
identifying the material that is being changed to a different state.

The machine-or-transformation test is a two-branched inquiry; an applicant may
show that a process claim satisfies § 101 either by showing that his claim is tied to a
particular machine, or by showing that his claim transforms an article. See <u>Benson</u>, 409
U.S. at 70. Certain considerations are applicable to analysis under either branch. First,
as illustrated by <u>Benson</u> and discussed below, the use of a specific machine or
transformation of an article must impose meaningful limits on the claim's scope to impart
patent-eligibility. See <u>Benson</u>, 409 U.S. at 71-72. Second, the involvement of the
machine or transformation in the claimed process must not merely be insignificant extra-
solution activity. See <u>Flook</u>, 437 U.S. at 590. (*In re Bilski*, En banc, U.S. Court of
Appeals for the Federal Circuit, Washington, DC, Oct. 30, 2008).

These requirements must be present in each meaningful limitation step. Bilski
makes it unacceptable to have such limitations in the preamble.

        In the instant case, each limitation appears to have equal importance and should therefore contain the statutory component or refer to it. Further, the statutory component must more specifically be an automated programmed electronic computer or computer processor or server, since simply a computer could mean a human using a desktop computer to perform all of the steps by hand using the computer as a tool to perform all of the claimed tasks. This requirement appears now to be met by every limitation in the independent method claims EXCEPT by step d) in independent method claims 12, e) in claim 23, e) in claim 24, c) in claim 42, d) in claim 54 and d) in claim 87. A human being appears to be performing this step while apparently using the computer system to access the data and then direct the next step. Performing this step through the programmed computer does not appear to have support. Applicant has admitted to this lack of support for a computer automated step regarding claim 12 limitations (a) and (d) as then on the record during an interview. The summary of this interview was mailed on October 30, 2009 and is on the record. Never the les, Applicant has amended limitation (a) of claim 12 to include a programmed computer and similarly in the other independent claims. However, Applicant has not amended claim 12 to include a programmed computer for limitation (d) of claim 12. Support for such an amendment for this limitation is lacking and has been admitted during said interview.
Please note the Board of Patent Appeals Informative Opinion *Ex parte Langemyer et al*-http://iplaw.bna.com/iplw/5000/split_display.adp?fedfid=10988734&vname=ippqcases2&wsn=500826000&searchid=6198805&doctypeid=1&type=court&mode=doc&split=0&scm=5000&pg=0

        Applicant is advised to avoid new matter in complying with these requirements, and to refer to the locations of support in the specification when making such amendments.

Claim Rejections - 35 USC § 112

        The following is a quotation of the first paragraph of 35 U.S.C. 112:

        The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
set forth the best mode contemplated by the inventor of carrying out his invention.

**3.   Claims 12-15, 17-19, 93 and 94, 23, 24, 42, 54-57 and 87-89 are rejected
under 35 U.S.C. 112, first paragraph,** as failing to comply with the written description
requirement. The claim(s) contains subject matter which was not described in the
specification in such a way as to reasonably convey to one skilled in the relevant art that
the inventor(s), at the time the application was filed, had possession of the claimed
invention.

Re. claim 12, The specification does not appear to have support for the new
amendment to claim 12, limitations (a), (b) or (c), at least for limitation (c), for the
insertion of "by the programmed computer", since the specification on pages 6 and 7
specifies a human being, a clerk or a specialist, performing the step of reviewing the
incoming order on a computer screen and then making a determination of which way to
route the order or what action to take (by the clerk - p. 6, l. 22 – p. 7, l. 6; and
alternatively, by a trading post specialist on he Exchange Floor (p. 7, ll. 7-13).
The same lack of support appears to exist for independent claims 23 (c) and (d), 24 (c)
and (d), 42(c), 54 (c) and 87 (c).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

**4.   Claims 12-15, 17-19, 93 and 94, 23, 24, 42, 54-57 and 87-89 are rejected
under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly
point out and distinctly claim the subject matter which applicant regards as the
invention. Each of the dependent claims 12, 21, 22, 23, 24, 42, 53, 54 and 87 leaves at
least one conditional limitation hanging, i.e. unresolved. With claim 12 as exemplary,
conditional limitation d), if activated, fails to complete a transaction for processing a
round-lot securities order as required by the preamble. Each independent claim
contains one or more conditional limitations which are incomplete if activated.

Claim Rejections - 35 USC § 103

>   The following is a quotation of 35 U.S.C. 103(a) which forms the
>   basis for all obviousness rejections set forth in this Office action:
>
>   (a) A patent may not be obtained though the invention is not identically disclosed or described
>   as set forth in section 102 of this title, if the differences between the subject matter sought to
>   be patented and the prior art are such that the subject matter as a whole would have been
>   obvious at the time the invention was made to a person having ordinary skill in the art to which
>   said subject matter pertains. Patentability shall not be negatived by the manner in which the
>   invention was made.

5.   **Claims 12-15, 17-19, 21-24, 42, 46-48, 52-57, 93 and 94 are rejected** under 35
U.S.C. 103(a) as being unpatentable over Cristofich et al. (US 6,173,270 B1, hereafter
Cristofich), Applicant Admitted Prior Art (hereafter AAPA), Lupien et al. (US Patent
6,098,051, hereafter Lupien and Braddock III (US Patent .4,412,287, hereafter
Braddock)

Re. Claims 12, 20-22, Cristofich discloses a method, executable software, computer-
readable medium and a programmed computer implemented at least partially in a
programmed computer for processing a securities order on a securities exchange
directed at a stock option control and exercise system operated through a stock
exchange.

AAPA discloses in the specification:

*   an auction market on the floor of an exchange (p. 1, ll. 16-17);

*   a limit order and a market order (p. 1, ll. 16-17);

*   an auction market crowd (page 1, ll. 16-24).

*   price improvement potential through competition among the crowd on the market
floor (p. 1, ll. 18-20);

*   an electronic specialist display book (p. 1, l. 22);

*   an opportunity to execute an order against other electronic orders on the
specialist display book (p. 1, ll. 20-24);

*   interest on the part of some investors and institutions in having a transaction
execute at a known price (p. 1. ll. 24-25);

- interest on the part of some investors and institutions in having a transaction execute at a known price while foregoing an opportunity for possible price improvement on the auction floor (p. 1. ll. 24-25);

- the desirability on the part of some investors and institutions in having a transaction execute at a known price if the transaction will execute in a more timely fashion than is available with the traditional auction transaction (p. 2, ll. 1-2).

Cristofich discloses a method, executable software, computer-readable medium and a programmed computer for:

- b) receiving by the programmed computer a securities order (Col. 9, l. 19-20), after receiving the execution allocation option (Col. 2, ll. 32-33)

- e) automatically executing by the programmed computer, a portion of the securities order at the best bid to buy or best offer to sell as reflected in the published quote price for the security (Cristofich, Col. 9, ll. 15-20).

c) using indicators for specific transaction requests (Col. 15. l. 41. The ordinary practitioner would have seen it as obvious to have used indicators throughout the securities transaction invention, including for determining by the programmed computer, whether the securities order includes an indicator requesting automatic execution, wherein the indicator requesting automatic execution directs the single securities exchange to execute the securities order at either a best bid to buy or best offer to sell as reflected in a quote price for the security that is published by the single securities exchange and also acknowledges that the securities order will not be exposed to an auction market crowd of the single securities exchange for possible price improvement Performing the trades within the exchange within which the security is listed would have been the most obvious course to take for the ordinary practitioner for this invention, since it would require special instructions to motivate the practitioner to do otherwise).

Cristofich does not explicitly disclose:

a) receiving by the programmed computer an execution allocation option for a security to allocate execution to book only;

b) receiving a round-lot securities order for a security,

d) if the securities order does not include the indicator requesting automatic execution, exposing the securities order to the auction market crowd of the single securities exchange for possible price improvement;

e) if the securities order includes the indicator requesting automatic execution, not exposing the securities order for possible price improvement;

f) after automatically executing the securities order, allocating by the programmed computer, shares of the automatic execution among contra parties according to the previously received execution allocation option.

However:

Re. b), Braddock discloses the trading of round lots (Col. 3, ll. 8-10).

Re. a) Lupien discloses assigning an allocation option to book only (Col. 5, ll. 55-63; Col. 11, ll. 52-58; Col. 21, ll. 53-57).

Re. c) Lupien discloses best bid and best ask, which is equivalent to a best bid to buy or best offer to sell (Col. 2, l. 8).

Re. d) AAPA discloses exposing the securities order to the auction market crowd of the single securities exchange for possible price improvement (Spec'n, p. 1, ll. 18-20). Further, Braddock discloses exposing the order to an auction market of the single securities exchange for possible price improvement if the securities order does not include an indicator requesting automatic execution (abstract – l. 1; Col. 1, ll. 34-37).

Re. e) if the securities order includes the indicator requesting automatic execution, not exposing the securities order for possible price improvement would have been an obvious option for the ordinary practitioner to recognize, since this order instruction implicitly instructs foregoing the price improvement path, since that excludes the price improvement path and other paths not involving automatic execution.

Re. f) The ordinary practitioner would have seen it as obvious to, after automatically executing the securities order, allocating by the programmed computer, shares of the automatic execution among contra parties according to the previously received execution allocation option, since this is an inherent component of any trade involving one or more contra parties when one or more contra parties are involve. Further, Lupien discloses contra parties involved in trading securities (Col. 5, ll. 61-62; Col. 12, l. 44).

Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method, executable software, computer-readable medium and a programmed computer implemented at least partially in a programmed computer for automatically processing a securities order on a securities exchange directed at a stock option control and exercise system operated through a stock exchange, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claims 13-15, Cristofich discloses wherein the securities order is a limit order (Col. 11, ll. 4-5) or a market order (Col. 10, ll. 23-25), and an execution report (Col. 10, ll. 15-17).

Re. Claim 17, Cristofich does not explicitly disclose at least partially fulfilling the order from a display book order. However, AAPA discloses at least partially fulfilling the order from a display book order. Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including the step of at least partially fulfilling the order from a display book order, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 18, AAPA discloses fulfilling a securities order through an auction market crowd by fulfilling the order from one's own inventory. It would have been obvious at the time of Applicant's invention to fulfill an order partially through a counter party such as potentially identified from an auction market crowd. Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including the step of at least partially fulfilling the order from an auction market crowd after automatically

executing the order, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 19, neither Cristofich nor AAPA explicitly disclose at least partially fulfilling the order from a display book order after automatically executing the order. However, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to at least partially fulfill the order from a display book order (see the rejection of claim 17) after automatically executing the order (see the rejection of claim 18). Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including the step of at least partially fulfilling the order from a display book order after automatically executing the order, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 23, the disclosures of Cristofich, AAPA, Lupien and Braddock are contained above in the rejection of claims 12, 20-22 regarding the limitations related to the assignment of allocation options to book only, round lots, and related automatic executions and allocations and to provide a method for automatically processing a securities order on a securities exchange as discussed in the rejection of claim 12 above.

Further, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Braddock exposing the order to an auction market of the single securities exchange for possible price improvement if the securities order does not include an indicator requesting automatic execution (abstract – l. 1; Col. 1, ll. 34-37).

Further, AAPA discloses limit orders (with sell and buy order implicit). Also, Glassman discloses the fiduciary responsibilities of securities brokers. Therefore, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention

would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including limit buy or sell orders, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 24, Please see the rejection of claims 12, 20-22 regarding the rejection of limitations related to the assignment of allocation options to book only, round lots, and related automatic executions and allocations.

Further, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich and AAPA to provide a method for automatically processing a securities order on a securities exchange as discussed in the rejection of claim 12 above. Further AAPA discloses market orders (with sell and buy order implicit). Therefore, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including market buy or sell orders, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claims 42, 52 & 53, please see the rejection of claims 12, 20-22 regarding the rejection of limitations related to the assignment of allocation options to book only, round lots, and related automatic executions and allocations.

However, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich and AAPA to provide a method for automatically executing and processing a securities order on a securities exchange as discussed in the rejection of claim 12 above, and to see an implicit comparing step involved in validating an order for automatic execution. Also, Glassman discloses the fiduciary responsibilities of securities brokers. Further, AAPA discloses limit orders and market orders (with sell and buy orders implicit). It would have been

obvious to change the status of an order from automatic execution to regular execution
if the price of the order is not equal to or better than the quote since normally a
brokerage firm is in business to make a profit. Disregarding the subject of commissions
charged for trades, a buy order in this instance set for automatic execution which is not
equal to or better than a quote would produce a loss for the brokerage firm, thus forcing
the order to be changed from automatic to regular execution. Regular execution in the
trading of securities means seeking counter parties who are willing to accept this buy
order at the offered buy price. Such a fixed buy price is otherwise called a limit buy
order, since it is not a market buy order which will pay any price offered by a seller
during the customer authorized time period of the market buy order. Therefore, it would
have been obvious to an ordinary practitioner of the art at the time of Applicant's
invention to have seen it as obvious to have used the disclosures of Cristofich, AAPA,
Lupien and Braddock to provide a method for automatically processing a securities order
on a securities exchange, including changing the status of the order from automatic
execution to regular execution if the price of the order is not equal to or better than the
quote, motivated by a desire to provide a data processing method and system for
managing individual accounts directed to the transacting of securities transactions with
pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 46, Cristofich discloses sending an execution report for the order (Col. 10, ll.
15-17).

Re. Claims 47 and 48, Cristofich does not explicitly disclose:

 Re. Claim 47, at least partially fulfilling the order from a display book order.

 Re. Claim 48, comprising at least partially fulfilling the order with an order from an
auction market crowd.

 However:

 Re. Claim 47, (please see the rejection of claim 17).

 Re. Claim 48, AAPA discloses at least partially fulfilling the order with an order
from an auction market crowd (page 1, ll. 16-24).

 Therefore, it would have been obvious to an ordinary practitioner of the art at the
time of Applicant's invention to have seen it as obvious to have used the disclosures of

Cristofich, AAPA, Lupien and Braddock to provide a method for automatically processing a securities order on a securities exchange, including exposing the order to an auction market crowd for possible price improvement, executing the order on an auction market of the securities exchange, at least partially fulfilling the order from a display book order and at least partially fulfilling the order with an order from an auction market crowd, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 54, please see the rejection of claims 12, 20-22 regarding the rejection of limitations related to the assignment of allocation options to book only, round lots, and related automatic executions and allocations.

Further, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich and AAPA to provide a method for automatically processing and executing a securities order on a securities exchange as discussed in the rejection of claims 12 and 42 above, and to see an implicit comparing step involved in validating an order for automatic execution. Further, AAPA discloses limit orders and market orders (with sell and buy orders implicit). It would have been obvious to change the status of an order from automatic execution to regular execution if the respective interest in the security does not meet the size of the security being offered, since no exact matching counter party offer is available for automatic execution. Some examples of this condition will exist if the respective interest is for a smaller quantity or an interest has made itself known for a larger quantity which is unwilling to buy a partial quantity. The ordinary practitioner would have seen it as obvious that the order had to be changed from automatic to regular execution. Therefore, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien and Braddock to provide a method for converting automatic processing of a securities order to regular processing on a securities exchange, motivated by a desire to provide a data processing method and system for managing individual accounts directed to the transacting of securities transactions with pre-

established criteria (Cristofich, Col. 2, ll. 29-33).

Re. Claim 55, please see the rejections of claims 12 and 42 above.

Re. Claims 56 & 57, please see the rejections of claims 13 and 14 above.

Re. Claims 93 & 94,

93. wherein automatically executing the securities order further comprises:
executing at least a portion of the securities order up to a size of the best bid to
buy or best offer to sell as reflected in the published quote for the security.

94. wherein automatically executing the securities order further comprises:
executing all of the securities order.

The ordinary practitioner of the art would have seen it as obvious from the disclosure of
Cristofich and his own knowledge of the exchange based securities trading rules and
practices and his fiduciary responsibilities, to execute at least a portion of a securities
order up to a size of the best bid to buy or best offer to sell as reflected in the published
quote for the security, or to execute all of a securities order, in both cases depending on
the guidelines of the order and corresponding market conditions. Therefore, it would
have been obvious to an ordinary practitioner of the art at the time of Applicant's
invention to have seen it as obvious to have used the disclosures of Cristofich, AAPA,
Lupien and Braddock to provide a method for converting automatic processing of a
securities order to regular processing on a securities exchange, motivated by a desire to
provide a data processing method and system for managing individual accounts
directed to the transacting of securities transactions with pre-established criteria
(Cristofich, Col. 2, ll. 29-33).

6. Claims 43 & 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Cristofich, AAPA, Lupien and Braddock as applied to claim 42 above, and further in
view of Madoff et al. (US PreGrant Publication 2001/0044767 A1, hereafter Madoff).

Re. Claims 43 & 49, none of Cristofich, AAPA, Lupien or Braddock explicitly disclose
wherein:

Re. Claim 43, the securities order further includes a size, changing the status of at least a portion of the order from automatic execution to regular execution if the size is greater than the interest.

Re. Claim 49, the quote includes a best bid price for the security, the securities order is a sell order and the price of the order is greater than the best bid price. However, Madoff discloses that auctioning of financial products "involves entering order for products with price, quantity and exposure time is matched with response in accordance with the order's exposure time" (Abstract, ll. 4-7).

Re. claim 43, it would have been obvious to an ordinary practitioner that an order received for automatic execution must receive an offer for the same or lower price, the same or lower quantity, and must be received within the time specified unless it is an open order until it is filled.

Re. Claim 49, the ordinary practitioner would have seen it as obvious that a sell order priced above the best bid price could not be processed for automatic execution because it would have to go to the market similar to the buy order in claim 43 above which is priced under the market.

Therefore, re. Claims 43 & 49, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien, Braddock and Madoff to provide a method for automatically processing a securities order on a securities exchange, including the step of changing the status of at least a portion of the order from automatic execution to regular execution if the size is greater than the interest, or a sell order has a price which is greater than the best bid price, motivated by a desire to provide an automated auction system for trading products such as equity securities (Madoff, p. 1, [0001]).

7.   Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cristofich, AAPA, Lupien and Braddock as applied to claim 42 above, and further in view of Wilton et al. (US Patent 6,519,574 B1, hereafter Wilton).

Re. Claim 50, none of Cristofich, AAPA, Lupien or Braddock explicitly disclose the exact wording of a quote includes a best offer price for the security, the securities order

is a buy order and the price of the order is less than the best offer price. However, Wilton
discloses a quote includes a best offer price for the security, the securities order is a buy
order and the price of the order is less than the best offer price (Col. 10, ll. 7-17).
Therefore, an ordinary practitioner of the art at the time of Applicant's invention would
have seen it as obvious to have used the disclosures of Cristofich, AAPA, Lupien,
Braddock and Wilton to provide a quote includes a best offer price for the security, the
securities order is a buy order and the price of the order is less than the best offer price,
including the step of identifying at least one particular contra side for the order after
automatically executing the order, motivated by a desire to provide trading data which
includes bid and/or offer information input by the trading entity and displaying such data
to the trading entity for the purpose of detecting trading opportunities According to
various trading parameters established by the trader (Wilton, Abstract – ll. 1-14).

8. **Claims 87-89 are rejected** under 35 U.S.C. 103(a) as being unpatentable over
Cristofich in view of AAPA, Lupien and Hasbrouck, Sofianos and Sosebee (New York
Stock Exchange Systems and Trading Procedures, NYSE Working Paper #93-01, Draft
1.2 April 27, 1993, hereafter Hasbrouck).

Re. Claim 87, please see the rejection of claim 12 regarding:

- assigning an execution allocation option to a security, wherein the execution
  allocation option is one of three options selected from the group consisting of
  allocate execution to crowd only, allocate execution to book only, or allocate a
  percentage of execution to crowd and allocate a percentage of execution to
  book;
- automatically receiving the round-lot securities order for the security, after
  assigning the execution allocation option;
- automatically determining whether the securities order is identified for automatic
  execution;
- exposing the securities order to the auction market crowd for possible price
  improvement if the securities order is not identified for automatic execution;

- automatically determining the assigned execution allocation option; and

after automatically executing the order automatically allocating shares of the automatic execution among contra parties according to the assigned execution allocation option. The rejection of claim 12 des not explicitly deal with

- automatically executing the securities order transaction against a published quote if the securities order is identified for automatic execution;
- automatically updating the published quote based on the order if the securities order was automatically executed against the published quote;

However. Hasbrouck discloses published quotes (page 13, l. 13). Therefore, an ordinary

practitioner of the art at the time of Applicant's invention would have seen it as obvious

to have combined the disclosures of Cristofich, AAPA, Lupien, Braddock and Hasbrouck

in order to provide a method for automatically processing a securities order on a

securities exchange with an auction market crowd, motivated by a desire to provide a

data processing method and system for managing individual accounts directed to the

transacting of securities transactions with pre-established criteria (Cristofich, Col. 2, ll.

29-33).

Re. Claims 88 & 89, it is implicit in exchange procedures that a size of the published

Appellants submit that each of claims 12-15, 17-19, 23-24, 42, 54-57, 87-89, and

93-94 are definite because they particularly point out and distinctly claim the subject

matter

which Appellants regard as the invention.

quote after updating reflects a size of the order or wherein a size of the published quote

after updating represents a minimum quote size, but does not necessarily reflect a size

of the transaction.

(10) Response to Argument

ARGUMENT A: "Claims 12-19, 23-24, 42-50, 54, and 87-89 are Directed to

Statutory Subject Matter Under 35 U.S.C. § 101" (p. 21, ll. 20-21; p. 21, l. 20 – p. 25, l.

5).

(1) Claims 12, 23-24, 42 and 87 are not an abstract idea (p. 22, ll. 2-22).

(2) Claims 12, 23, 42, 54 and 87 satisfy the MorT test (p. 23, l. 1 – p. 25, l. 5).

RESPONSE:

1) Appellant admits that the MorT test is a useful and important test in evaluating

patentability (p. 22, ll. 3-6).

2) Office Policy states that insignificant solution activity does not qualify as a factor

weighing toward patent eligibility ("Interim Examination Instructions for Evaluating

Subject Matter Eligibility Under 35 USC 101", August, 2009; supplemented by "101

Quick Reference Sheet", July, 2010).

3) Under para. II, B. (p. 6), insignificant "extra-solution" activity is defined as follows:

"A "field-of-use" limitation does not impose *actual boundaries* on the scope of the
claimed invention. A field-of-use limitation merely indicates that the method is for use in
a particular environment, such as "for use with a machine" or "for transforming an
article", which would not require that the machine implement the method or that the steps
of the method cause the article to transform. A field-of-use limitation does not impose a
meaningful limit on the claimed invention.
Insignificant "extra-solution" activity means activity that is not central to the purpose of
the method invented by the applicant. For example, gathering data to use in the method
when all applications of the method would require some form of data gathering would not
impose a meaningful limit on the claim.".

The significant steps in claim 12 are steps e) and f) since the automated programmed

computer (the eligible machine) makes significant solution decisions in these steps.

However, under some possibilities in the claim, the machine driven process never gets

to step eligible machine step e) since it stops at step d), and steps a), b) and c) are

insignificant solution steps since they are mere data gathering steps considered

insignificant extra solution steps (see below).

4) In the "101 Quick Reference Sheet", under Factors Weighing Against Patentability

are the following guidelines:

Factors Weighing Against Eligibility:
• **No recitation of a machine or transformation (either express or inherent).**
• <u>Insufficient recitation of a machine or transformation</u>.
o   Involvement of machine, or transformation, with the steps is merely nominally<u>, insignificantly,</u> or
<u>tangentially</u> related to the performance of the steps, e.g., <u>data gathering</u>, or merely recites a field in
which the method is intended to be applied.
o   Machine is generically recited such that it covers any machine capable of performing the claimed
step(s).
o   <u>Machine is merely an object on which the method operates</u>.
o   Transformation involves only a change in position or location of article.
o   "Article" is merely a general concept (see notes below).
• The claim is not directed to an application of a law of nature.
o   The claim would monopolize a natural force or patent a scientific fact; e.g., by claiming every mode
of producing an effect of that law of nature.
o   Law of nature is applied in a merely subjective determination.
o   Law of nature is merely nominally, insignificantly, or tangentially related to the performance of the
steps.
• The claim is a mere statement of a general concept (see notes below for examples).
o   Use of the concept, as expressed in the method, would effectively grant a monopoly over the concept.
o   <u>Both known and unknown uses of the concept are covered, and can be performed through any existing</u>
<u>or future-devised machinery, or even without any apparatus</u>.
o   The claim only states a problem to be solved.
o   The general concept is disembodied.
o   The mechanism(s) by which the steps are implemented is subjective or imperceptible.

NOTE: The guidelines which are most clearly applicable for claim 12 are underlined

above. The underlined factors weighing against eligibility apply since no qualifying

factors of eligibility are found in at least one branch of possibility in exemplary claim 12

(see below).

5) The limitations e) and f) of exemplary claim 12, are conditional language, as follows:

e) if the securities order includes the indicator requesting automatic execution,
automatically executing by the programmed computer, the securities order at the best bid to buy
or best offer to sell as reflected in the published ~ quote price for the security, without exposing
the securities order for possible price improvement; and

f) after automatically executing the securities order, allocating by the programmed
computer, shares of the automatic execution among contra parties according to the previously
received execution allocation option.

(a) The conditionality is controlled by limitation e) and limitation f) is totally dependent on

e), which makes f) conditional.

(b) Under section I, 1. Step 1, i (p. 1), a process is defined as follows:

i. Process – an act, or a series of acts or steps that are tied to a particular machine or
apparatus or transform a particular article into a different state or thing.

This definition shows that methods are not flowcharts or protocols, but actions

performed, and thus conditions that are not exercised have not occurred, i.e. - a

process must be a complete, unbroken series of acts.

6) The process or method of claim 12 can stop at element d) which is a human

conducted step, resulting in no automation (more like insufficient tie to a machine or

transformation, there are some steps that do use a machine but are just data

gathering) because the method in this branch never gets to step e).

7) Therefore, since a process must be a complete, unbroken series of acts, the process

steps which qualify for step d) stops the programmed automated computer process of

insignificant solution activity at that point and thus means that conditional steps e) and f)

cannot be given weight since hypothetical steps do not comply with the above definition

of a process.

8) Steps a), b) and c) are insignificant extra solution according to the above definition in

the guidelines because these steps are mere data gathering as defined in the factors

weighing against eligibility above.

9) This means that the process in the branch which passes through step d) fails to

contain the required significant solution step of an automated process conducted

through a programmed computer and thus fails the machine branch of the MorT test, a

test which Applicant admits is valid. Appellant makes no argument that the

transformation branch of the MorT test applies, since there is no physical

transformation.

10) Re. argument that the claim (claim 12) is not an abstract idea, the above "Factors

Weighing Against Eligibility" qualify at least because the claim fits the above stated

factors, including

"• The claim is a mere statement of a general concept:.
o Both known and unknown uses of the concept are covered, and can be performed through any existing
or future-devised machinery, or even without any apparatus.",

This factor weighing against eligibility applies since no qualifying factors of eligibility are

found in at least one branch of possibility in exemplary claim 12.

 CONCLUSION: The rejection of claims 12-19, 23-24, 42-50, 54, and 87-89 under 35
USC 101 is warranted.

ARGUMENT B: "Appellants submit that each of claims 12-15, 17-19, 23-24, 42, 54-
57, 87-89, and 93-94 satisfies the written description requirement because one of
ordinary skill in the art would clearly view the Appellants in possession of the claimed
invention by reading the Specification." (p. 25, ll. 10-13; p. 25, l. 6 - p. 28, l. 21).
(1) The Federal Circuit "made clear that the written description requirement does not
demand either examples or an actual reduction to practice; a constructive reduction to
practice that in a definite way identifies the claimed invention can satisfy the written
description requirement." *Id.* At 1352+ (citing *Falko-Gunter Falkner v. Inglis,* 448 F.3d
1357, 1366-67 (Fed. Cir. 2006)). (p. 26, ll. 5-9).
(2) "The examiner has misread pages 6-7 of the specification" since this section
describes the practice prior to the invention (p. 26, l. 23 – p. 24, l. 11).
(3) Support exists at page 27, ll. 11-15 and Fig. 4A for satisfying the written description
requirement (p. 27, l. 12 – p. 28, l. 21)
RESPONSE: This rejection is withdrawn.

ARGUMENT C: "Appellants submit that each of claims 12-15, 17-19, 23-24, 42, 54-
57, 87-89, and 93-94 are definite because they particularly point out and distinctly claim
the subject matter which Appellants regard as the invention." (p. 29, ll. 7-9; p. 29, l. 1 –
p. 30, l. 2).
RESPONSE: This rejection is withdrawn.

ARGUMENT D: ".. the Final Office Action has failed to establish a *prima facie* case
of obviousness" (p. 30, ll. 14-15; p. 30, l. 3 – p. 37, l. 6).
ARGUMENT D-1:   "Clearly, this language (in Cristofich) does not disclose what
Examiner purports it does, as there is no mention of anything like an "execution
allocation" in the excerpt; .Moreover, one of ordinary skill in the art, at the time of the
invention, would not have understood an "after receiving[/assigning] the execution

allocation" in the context of the present invention to have meant "for the purchase of
securities in accordance with pre-established plan criteria." Parenthesis added) (p. 31,
ll. 13-17).

RESPONSE:

a) THE ORDINARY PRACTITIONER

(1) Appellant's Admission of the knowledge of the ordinary practitioner:

"In one aspect of the present invention, if the securities order meets the criteria of the
"if" statement of step d), it would be processed by being exposed to the auction market
crowd of the single securities exchange for possible price improvement. **One of
ordinary skill in the art** would know that processing an order does not equate with
executing an order, as the Examiner alludes, because on exchange-based markets,
only a fraction of orders execute, but the exchange-based systems process each of
them."(p. 29, ll. 20-25). (Underlining and bolding added).

(2) The MPEP and Case Law

(a) MPEP 2141, II C. Resolving the Level of Ordinary Skill in the Art

Any obviousness rejection should include, either explicitly or implicitly in view of the
prior art applied, an indication of the level of the ordinary skill in the art. A finding as to the level of
ordinary skill may be used as a partial basis for a resolution of the issue of obviousness.

The person of ordinary skill in the art is a hypothetical person who is presumed to have
known the relevant art at the time of the invention. Factors that may be considered in
determining the level of ordinary skill in the art may include: (1) "type of problems
encountered in the art;" (2) "prior art solutions to those problems;" (3) "rapidity with
which innovations are made;" (4) "sophistication of the technology; and" (5) "educational
level of active workers in the field. In a given case, every factor may not be present, and
one or more factors may predominate." *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d
1116, 1121 (Fed. Cir. 1995); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*,
807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); *Environmental Designs,
Ltd. V. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983).

"A person of ordinary skill in the art is also a person of ordinary creativity, not an
automaton."*KSR*, 550 U.S. at ___, 82 USPQ2d at 1397. "[I]n many cases a person of
ordinary skill will be able to fit the teachings of multiple patents together like pieces of a
puzzle."*Id.* Office personnel may also take into account "the inferences and creative
steps that a person of ordinary skill in the art would employ."*Id.* at ___, 82 USPQ2d at
1396.

In addition to the factors above, Office personnel may rely on their own technical expertise to describe the knowledge and skills of a person of ordinary skill in the art. The Federal Circuit has stated that examiners and administrative patent judges on the Board are "persons of scientific competence in the fields in which they work" and that their findings are "informed by their scientific knowledge, as to the meaning of prior art references to persons of ordinary skill in the art." *In re Berg* , 320 F.3d 1310, 1315, 65 USPQ2d 2003, 2007 (Fed. Cir. 2003).

(b) Case Law

Neither the Examiner nor Appellants has addressed the level of ordinary skill in the pertinent arts of tracking items and data formatting. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau,* 261 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error 'where the prior art itself reflects an appropriate level and a need for testimony is not shown'") (Quoting *Litton Indus. Prods'., Inc. v. Solid State Sys. Corp.,* 755 F.2d 158, 163 (Fed. Cir. 1985)).

(c)   The Examiner's Definition of the Ordinary Practitioner in the Instant Case

In the instant case, the ordinary practitioner would be a single individual or more likely a team of practitioners. For example, Appellant's invention has two inventors and is owned by the New York Stock Exchange as Assignee..

In the prior art of record, the number of inventors are:

Cristofich - 5 (for Merrill, Lynch, Pierce, Fenner and Smith as Assignee)

Braddock – 1

Madoff – 3

Wilton – 2

Hasbrouck - 3 (a study of New York Stock Exchange Systems and Exchange Procedures)

Lupien - 2

Whether an individual or more commonly a team, the inventor(s) would be have the knowledge and experience of New York Stock Exchange trading procedures and related rules, both internal as well as regulatory. This would include the various types of trading permitted, and the options a buyer, seller, brokers and exchange trading personnel have, and how many parties can be part to a transaction, known as counter

parties. In addition the inventor(s) would also have been knowledgeable in system design, both traditional non- computer systems and computer systems, and related programming and computer hardware and computer networking. The Hasbrouck paper provides a detailed review of the New York Stock Exchange trading rules, systems and procedures which go into far greater detail than Appellant's disclosure. The Cristofich patent is owned by Merrill, Lynch, Pierce, Fenner and Smith, the largest and most well known stock brokerage firm in the United States and presumably the largest stock brokerage participant in the New York Stock Exchange. Each of the other pieces of prior art also exhibit detailed knowledge of stock exchange systems and procedures.

As such, the level of ordinary skill regarding Appellant's invention demonstrated on the record is extremely detailed since the ordinary practitioner in this case is a stock market and exchange single professional or team of professionals.

Appellant therefore was proper in employing the argument of the knowledge of the one of ordinary skill in the convincing arguments in favor of withdrawal of the rejection under 35 USC 112-2nd paragraph.

Appellant's argument further suggests why the arguments for reversal of the rejections under 35 USC 103(a) should be rejected. This is demonstrated in greater detail below in regard to the responses to the arguments in sections D 1 through 6.

b) The KSR Guidelines of Determination of Obviousness

(1)   Begin with the Graham vs Deere Analysis
Provide Facts.
   • A disclosure in a non-analogous art which solves the problem is valid prior art
All elements do not have to be factually demonstrated.

(2)   Valid Non-Factual Analysis -- Must explain the differences between the prior art and what one of ordinary skill would have seen as obvious after consideration of the facts according to the following considerations.

   • Common Sense
   • Obvious to Try
   • Expected/Predictable Results
   • Expectation of Success
   • Design incentives or market forces would have made this improvement obvious

- The state of the art would have made the practitioner recognize the opportunity for improving upon the prior art.
- In re Khan factors – obvious or suggested to one of ordinary skill based on his knowledge – the "inferences and creative steps one of ordinary skill would employ"

(3).   ORDINARY SKILL
An examiner may use their personal knowledge to describe the knowledge of one of ordinary skill and what such one would have seen as obvious from the evidence. If the examiner does not explicitly define the one of ordinary skill then the one of ordinary skill is defined by the relevant prior.

(4)   FACTORS PROHIBITING A PRIMA FACIE CASE OF OBVIOUSNESS - i.e. ALLOWABILTY

- Unexpected/Unpredictable Results
- Technological barriers to satisfactory combination.
- Factors in the above rationales do not hold up to challenge

(5)   In re Kahn

The guidelines provided by In re Kahn as referenced in the US Supreme Court's decision of April 2007 in the case known as KSR, are as follows:

The Court noted that "[t]o facilitate review, this analysis should be made explicit. Id. (citing In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." Id. at 1741, 82 USPQ2d at 1396.

c) Rules for Proper Traversal

MPEP 2141, IV.

If an applicant disagrees with any factual findings by the Office, an effective traverse of a rejection based wholly or partially on such findings must include a reasoned statement explaining why the applicant believes the Office has erred substantively as to the factual

findings. A mere statement or argument that the Office has not established a *prima facie* case of obviousness or that the Office's reliance on common knowledge is unsupported by documentary evidence will not be considered substantively adequate to rebut the rejection or an effective traverse of the rejection under 37 CFR 1.111(b). Office personnel addressing this situation may repeat the rejection made in the prior Office action and make the next Office action final. *See* MPEP § 706.07(a) 706.07(a). (underlining added).

In other words, a proper traversal requires a combination of evidence and rationale sufficient to put the examiner's rejection into serious question.

d) Response to the Argument

The Argument: "Clearly, this language (in Cristofich) does not disclose what Examiner purports it does, as there is no mention of anything like an "execution allocation" in the excerpt; .Moreover, one of ordinary skill in the art, at the time of the invention, would not have understood an "after receiving[/assigning] the execution allocation" in the context of the present invention to have meant "for the purchase of securities in accordance with pre-established plan criteria." (p. 31, ll. 13-17) (Parenthesis added).

The RESPONSE:

a) Appellant merely makes a bold assertion that "one of ordinary skill in the art, at the time of the invention, would not have understood an "after receiving[/assigning] the execution allocation" in the context of the present invention to have meant "for the purchase of securities in accordance with pre-established plan criteria.". This assertion fails to meet the rebuttal standard outlined above since it makes no attempt to present evidence nor even to demonstrate through argument as to why the ordinary practitioner, as described above, would not have understood the disclosure in Cristofich as conveying the substance of "execution allocation".

b) The Cristofich inventor team of five, working for the largest participant in New York Stock Exchange trading operations, Merrill Lynch, obviously understood the equivalents of Appellant's terminology of "execution allocation" in the processing of a trade order. Along with the cited passage in Col. 2, ll. 32-33, the detailed exposition in Cristofich

demonstrates this in Col. 9, ll. 1-19 where the process of moving towards a trade order is laid out in detailed steps. It matters not that Cristofich happens to describe the process of developing and processing orders to buy and sell stock options. The steps lead to the option of automatic execution of a trade order in line 20 (the exercising of stock options), or of a sale on he open market (l. 54), which suggests any of the trading options on an exchange are available, such as crowd only or any of the options contained in limitation a) of claim 12). Lines 1-3 disclose that a trade order may be triggered by direct request or by a time function (i.e. a predetermined time which his automatically serves as a trigger for the processing of a trade. Rules for setting of price are disclosed in lines 3-11. The steps in this section clearly do suggest the equivalent of an execution allocation since they determine the number of shares to be bought or sold under certain price rules, which is the execution allocation. As stated above regarding the interpretation of the knowledge of one of ordinary skill, the on of ordinary skill who is in full understanding of he trading process in general and of the NY Stock Exchange in particular, would have fully understood the language in Cristofich as meaning execution allocation, but in fact would have known before reading the disclosures of Cristofich and any of the other references on the record.

ARGUMENT D-2:

a) "It would be impossible for one of ordinary skill in the art, at the time of the invention, to have arisen at the claimed subject matter of step c) based on a meager description of a "tax payment field" used as an indicator of whether a disbursement is requested." (p. 32, ll. 13-16).

b) "The Examiner's reasoning that "[p]erforming the trades within the exchange within which the security is listed would have been the most obvious to course to take ... since it would require special instructions to motivate the practitioner to do otherwise" does not explain why one of ordinary skill would have seen the "tax payment field" in Cristofich and thought to invent a programmed computer that determines "whether the securities order includes an *__indicator requesting automatic execution__.*" (p. 33, ll. 6-11).

RESPONSE:

Improper Traversals: Appellant has not met the requirement of a proper traversal since Appellant merely makes two assertions without using a combination not evidence and rationale to demonstrate why the examiner's rejection evidence and rationale are in error. For example, Appellant has made no effort to support the assertions that

- a) "It would be impossible for one of ordinary skill in the art, at the time of the invention, to have arisen at the claimed subject matter of step c) based on a meager description of a "tax payment field" used as an indicator of whether a disbursement is requested." and

- b) "does not explain why one of ordinary skill would have seen the "tax payment field" in Cristofich and thought to invent a programmed computer that determines "whether the securities order includes an *indicator requesting automatic execution."*.

Appellant in the second case merely asks a question instead of demonstrating through evidence and rationale why the examiner's statement of obviousness is in error.

a) The examiner has already demonstrated above that Cristofich makes a detailed disclosure o a general process which of step c) "whether the securities order includes an indicator requesting automatic execution". In fact Cristofich discloses a process using an indicator which may lead to a request for automatic execution (Col. 9, ll. 1-20 - indicator - l. 3 - a time function; and l. 20, automatic execution).

b) The ordinary practitioner would have seen it as obvious that the tax payment field in a customer file is merely one of many places in a computerized process where instruction information may reside for triggering a type of securities trade. Such a practitioner would have known that tax considerations are one of many reasons why an investor will trigger a trade transaction. The most well known reason for tax triggered trades is in December of each year when investors make many trading decisions for tax reasons. There are other reasons, some of which have to do with the stock options which Cristofich is specifically disclosing. However, Cristofich is mainly motivated to disclose securities trading transactions, with a focus on stock options. However, as stated above, the Cristofich inventor team was working for Merrill Lynch and Merrill's

main business focus has been on stock trading, the commission revenue from which
has been the main source of income for Merrill Lynch. The ordinary practitioner in this
case is a stock market and exchange single professional or team of professionals.

ARGUMENT D-3: "the Examiner has not shown the prior art to include exposing the
order to an auction market of the exchange if the securities order does not include an
indicator requesting automatic execution, as nothing in Braddock discloses a system or
method exposing an order to an auction market based on the order's lacking an
indicator requesting automatic execution. Moreover, the Examiner has not explained
whether it would be obvious to one of ordinary skill in the art to modify or alter Braddock
to come to step d)." (p. 33, ll. 1-7; p. 33, l. 12 – p. 34, l. 7).

RESPONSE:

a). Improper Traversal: Appellant has again made bold assertions which are not
supported by a combination of evidence and rationale sufficient to put the examiner's
case of obviousness into serious question. Appellant has merely selected a phrase in
Braddock out of context, a context established by the disclosure of Cristofich, AAPA,
Lupien and Braddock.

b). 1). All stock exchanges are auction markets by their nature, so an indicator or lack
thereof does not determine whether an auction market I involved. The very fact that a
securities trade I presented to a stock exchange is an indication for exposing a trade to
an auction market...

Braddock in fact discloses every type of trade covered by Appellant's claim 12 in the
very abstract quoted by Appellant in p. 33, lines 21-24, including market orders
(automated with no price improvement directive per se), limit orders (implicitly upper
limit for buy orders and lower limit for sell orders, stop orders and "other specialized
transactions", which suggests all other kinds of transactions. In fact, all of Braddock
involves an auction market, as do Cristofich and the other prior art references on the
record.

Further, stock markets are inherently auction markets. For example, an order to sell at
market may actually get a price improvement just because the market has gone up for a

sell order or has gone down for a buy order, or conversely, get a price deterioration for the other side of the same reasons.

ARGUMENT D-4: "The Examiner's analysis does not include explaining how the limitations of step e) in which the securities order is executed at the best bid to buy or best offer to sell or are otherwise obvious to one of ordinary skill. In addition, the Examiner's reasoning that it would have been obvious for a programmed computer to execute the order and not expose it for possible price improvement if it includes the indicator requesting automatic execution lacks any rational underpinning as required by KSR. Stating that step e) is obvious "since this order instruction implicitly instructs foregoing the price improvement path, since that excludes the price improvement path and other paths not involving automatic execution" does not explain how one of ordinary skill would develop a programmed computer to check if an indicator requesting automatic execution is in a securities order and to react to the presence of that indicator by not exposing the order to price improvement and instead executing it." (p. 34, ll. 15-25).

RESPONSE:

Best bid to buy or best offer to sell is the same as buying or selling at market, something obvious to any ordinary practitioner at the time of Appellant's invention.

As stated above in the responses to the prior arguments, Cristofich discloses or suggests a set of steps which determines from an indicator the type and timing of trade to be processed for a variety of trade processing in Col. 9, ll. 1-20 and following. Explicit price improvement is part of the set of options, as is the lack of an instruction for price improvement, which is generally a trade at market, which may or may not result in inadvertent price improvement, as explained above.

ARGUMENT D-5: "There is no indication in the art that one of ordinary skill at the time of the invention would have found it obvious to allocate shares according to such an execution allocation option and the Examiner's mere conclusory statement does not support such a finding. These significant differences between the scope and content of

the prior art and the inventions of claims 12 and 21-22 cannot be resolved by the
knowledge of one of ordinary skill in the art at the time of the invention. As a result,
Appellants submit that the Examiner has not established a prima facie case of
obviousness and the Board should withdraw these rejections." (p. 35, ll. 11-18).

RESPONSE:

a) Improper Traversal: Appellant has again made bold assertions which are not
supported by a combination of evidence and rationale sufficient to put the examiner's
case of obviousness into serious question. This two part argument has no support at all.

b) As explained in detail above, the ordinary practitioner of the art at the time of
Appellant's invention would have had detailed knowledge of all of the claimed limitation
steps of exemplary claim 12 and far more since the practitioner would have had direct
experience in a large scale of trading through the NY Stock Exchange and other
securities exchanges. This includes allocating shares execution allocation options.

c) The very opposite is true regarding the scope and content of the prior art for
resolving the scope and content of the prior art and the inventions of claims 12 and 21-
22 . As demonstrated above, the ordinary practitioner was fully knowledgeable in every
detail of Appellant's invention. The differences are merely in the choice of words in a
limited number of expressions, i.e. terminology (perhaps "execution allocation"), while
the bulk of the claims terminology is ordinary terminology used by the ordinary
practitioner (e.g. best buy or best offer to sell, to crowd only, to book only, etc.).

ARGUMENT D-6:   The remaining claims cited in paragraphs D. 2. through D. 6. are
allowable on the same basis as or because claim 12 is allowable. (p. 35, l. 19 – p. 37, l.
6).

RESPONSE: These claims are not allowable since exemplary independent claim is not
allowable.

SUMMARY

The following factors from the KSR guidelines apply to these rejections as follows in demonstrating that a *prima facie* case of obviousness has been properly made wit hteh above rejections::

- Common Sense
- Obvious to Try
- Expected/Predictable Results
- Expectation of Success
- The state of the art would have made the practitioner recognize the opportunity for improving upon the prior art.
- *In re Khan* factors – obvious or suggested to one of ordinary skill based on his knowledge – the "inferences and creative steps one of ordinary skill would employ"

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This is especially driven by the in depth knowledge of this art by the ordinary practitioner as defined by the prior art on the record and by the examiner.

> **Deleted:** RESPONSE:¶

IN CONCLUSION:

The examiner believes that he has made a proper *prima facie* case of obviousness in the rejection of claims 12-15, 17-19, 21-24, 42, 43, 46-50, 52-57, 87-89 and 94 according the above KSR guidelines. It is important to point out the emphasis made in KSR of their quotation of the above language in *In re Kahn*.. This language emphasizes the importance of considering the phrase "for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ". The examiner has used this consideration in the rationale of every rejection in making a proper *prima facie* case of obviousness.

> **Deleted:** The examiner believes that he has made a proper case of *prima facie* obviousness in the rejection of claims …. Under 35 USC 103(a).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Siegfried E. Chencinski

/Siegfried E. Chencinski/

Examiner, Art Unit 3695

Conferees:

Kambiz Abdi, SPE /K. A./

Supervisory Patent Examiner, Art Unit 3684

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691